countries, but it is not produced in China. The objective is to establish TMA technique and to prepare the reagent kit for HIV RNA detection and then to compare the sensitivity between TMA and RT-PCR.
Methods: TMA technique was established and was used in HIV quantity detection. The HIV standard sample (HIV transcript) and blood plasma with HIV antibody positive from different patients with HIV infection were detected respectively. The plasma HIV RNA of all the patients was detected by Roche COBAS Amplicor. Then the sensitivity was compared between TMA and Roche COBAS Amplicor, and also the associativity of the two NAT techniques was analyzed.
Results: HIV RNA detection sensitivity in HIV transcript was 1.0×10^1 copies/ml using TMA, but it was 5.0×10^2 copies/ml in the plasma of the patients with HIV infection. The consistency of negative control standard was 100%. The detective linear range was within 5.0×10^2 copies/ml to 1.0×10^8 copies/ml in the plasma of the patients with HIV infection. TMA had a good correlation with Roche COBAS Amplicor.
Conclusion: TMA technique is of good sensitivity, specificity and repetition in clinical HIV RNA quantity detection. It could be more sensitive than Roche COBAS Amplicor if the HIV RNA extract reagent kit is improved.

PP-168 Knowledge of HIV/AIDS, transmission and prevention methods in Bangladesh

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Background: This study aims to explore the levels and recent changes in the indicators of HIV-related knowledge, transmission and prevention methods reported by the women and men age 15–49.
Methods: Descriptive methods have been widely used with the application of most recent four rounds of nationally representative *Bangladesh Demographic and Health Surveys* (1997–2007) where HIV/AIDS related data are available.
Results: This study shows that knowledge of AIDS has increased considerably in the past 10 years; rising three-times higher for ever-married women compared with about nine in ten ever-married men have heard of AIDS the knowledge. The patterns of awareness of HIV/AIDS by background characteristics like age, marital status, residence, division, education, wealth quintile etc referred in the BDHSs are similar for both ever-married women and men, but the differentials are smaller for men. This study finds that currently about one-third of ever-married women are aware of each of the three major ways to reduce the risk of getting HIV: abstaining from sexual intercourse, limiting sex to one uninfected partner who has no other partners, and using condoms. Men have greater knowledge of HIV prevention methods than women. The knowledge of HIV prevention methods among both women and men is highest in urban areas. In case of knowledge of means of transmission of HIV even there are some significant differentials, the majority of women and men are concerned where the AIDS virus can be transmitted by using an unsterilized needle or syringe, and via blood transfusion.
Conclusion: The knowledge of HIV/AIDS, transmission and prevention of methods increased considerably in Bangladesh and it is always higher among both women–men younger, married, urban, who have completed secondary or higher education, and who belong to the highest wealth quintile.

PP-169 A simple method for exploring the mechanisms for anti-HIV compounds

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Objectives: A pseudovirus system was constructed to investigate the anti-HIV-1 specificity and mechanism of four previously identified anti-HIV compounds from Traditional Chinese Medicine.
Methods: Pseudovirus system was used to investigate the anti-HIV-1 mechanisms of the four natural compounds (SM-10, HGM-8, Flazin, and KY008). First, we analyzed the specificity of these compounds by infecting 293A cells with vesicular stomatitis *virus* (VSV) G pseudotyped HIV-1 or murine leukemia virus (MLV). Briefly, pseudovirus HIV-1-luc or MLV-luc infected 293A cells were incubated with or without the testing compound, 48 hours later, the luciferase activities were evaluated to identify the anti-virus activities. Second, by testing for the specific viral products of HIV-1 by real-time PCR, the targets of the compounds with special anti-HIV activity in early state of HIV life have been identified. To identify if the compounds could inhibit HIV lifecycle in late state, we transfected HIV-1-luc to 293A cells and then evaluated the luciferase activity.
Results: In our system, all four compounds showed anti-HIV activities. In particular, compound SM-10 could specifically inhibit HIV-1 replication without affecting the lifecycle of MLV. Further studies showed that SM-10 might block nuclear import of the HIV-1 preintegration complex (PIC) to inhibit HIV-1 replication.
Conclusion: We initially identified the anti-HIV targets of these natural compounds. Encouragingly, some of them showed novel action mechanisms to inhibit HIV replication, suggesting that these compounds might be used as new anti-HIV drugs in response to drug-resistant virus. Furthermore, the pseudovirus system we constructed in this study can be used as an assay platform to screening natural compounds for potential new anti-HIV therapeutics.
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PP-170 HIV/AIDS/STI knowledge and behavior among Female Sex Workers in urban areas at Hyderabad, Pakistan

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Background: The principal means of achieving these objectives were through a clinic based approach using peer outreach workers. A Cross Sectional (Rapid Assessment Survey) was done during December 2006–March 2007 at Hyderabad Brothel Area and main city. We surveyed 131 street-based and residential Female Sex Workers (FSWs).
Methods: We used the well-known methodology of appointing peer outreach workers, who identified the women who were actively involved in commercial sex and invited them to one of our temporary clinics.
Results: According to the survey results we found that most of the women actively involved in commercial sex are between 21 and 35 years old (78.1%). A surprising finding was that most of the FSWs belong to married families (89%). Regarding their education, the majority of FSWs were illiterate (79.3%); in the assessment of the FSWs' knowledge of AIDS/HIV and STI diseases, we found that 48.1% are aware of AIDS.
Conclusion: We found that Female Sex Workers still need to acquire correct knowledge of HIV/AIDS and STI spread

and prevention. In particular, we should improve practices of condom use and stress their importance.

PP-171 **Production and comparison of high titer lentivirus with different promoters on regulating transgene expression in cells**

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Objectives: Produce high titer recombinant lentivirus to allow promising vectors to enter clinical trials and elucidate different promoter efficiency on regulating transgene expression in different cells.
Methods: Three lentiviral vector systems were constructed by inserting cytomegavirus (CMV) promoter, human elongation factor-1alpha (EF-1α) or ubiquitin promoter for regulating the EGFP expression in the transduced 293A, 293FT and MOLT-4 cells. Production, concentration and purification of recombinant lentivirus were achieved by developing a rapid, efficient, and inexpensive method with ultrafiltration. Viral RNA was quantitated by real-time PCR.
Results: Lentiviral RNA could reach a level of 7.7×10^8 copies/ml in the supernatant of 293FT packaging cells and 5.5×10^{10} copies/ml in the concentrates, respectively. CMV promoter was more efficient for regulating EGFP expression in 293A and 293FT cells, which was about 10-fold higher than EF-1α and ubiquitin promoters. However, EF-1α promoter showed a higher efficiency than that of the CMV and ubiquitin promoter in MOLT-4 cells. The expression of GFP driven by CMV promoter maintained for over 4 weeks with no apparent decrease in cell passages.
Conclusion: High titer lentiviral stocks can be produced by an optimized ultrafiltration method. Promoter selection and proper host cells should be considered in order to achieve high level transgene expression.

PP-172 **Detection of the relation between the presence of Chlamydial antigen in the cervix of infertile women and the condition of their tubes**

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Introduction: Chlamydia infection has now supplanted gonorrhoea as the most common STD in the industrialized nations. Control of this STD is particularly important because of its grave consequences mainly infertility.
Aim: To correlate between the condition of the tube and the presence of Chlamydial antigen.
Subjects and Methods: 100 consecutive infertile women. Cervical specimens for *C. trachomatis* were collected by rotating a cytology brush in the endocervix 360 degrees. Chlamydiazyme and direct immunofluorescent technique were used to detect Chlamydia antigen in the cervix.
Results:
- *Chlamydia trachomatis* was detected in 5% of the cases.
- In 46% of cases, laparoscopy verified the presence of tubal pathology of infertility while 54% had normal fallopian tubes.
- 40% of chlamydia positive cases and 46.32% of chlamydia negative cases had tubal pathology, the difference was not statisticaly significant, so it is apparent that not every case with cervical Chlamydial infection leads to tubal pathology.
- In 60% of Chlamydia positive cases the etiology of infertility was unexplained compared to only 21.05% of Chlamydia negative cases. This difference is statically significant.

Conclusion: There was no significant relationship between cervical Chlamydial infection and infertility.

PP-173 **Isolation of *Chlamydia trachomatis* from cases of cervicitis**

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Introduction: The increasing prevalence of sexually transmitted diseases together with recent research findings have led to the recognition of Chlamydiae as a frequent cause of genital tract infections, thus adding to their known importance as agents of human diseases. The genital localization of the agent of inclusion conjunctivitis of the newborn had been already recognized at the beginning of this century.
Aim of the work: To establish the rate of infection with *Chlamydia trachomatis* in cases of inflamed cervices of adult females attending the gynecological clinics of Alexandria Hospitals.
Subjects and Methods: 175 adult females, selected from cases of cervicitis. Endocervical swabs were taken from each patient through introduction of Calcium alginate swabs (Calgi swabs), and preserved in special collection media, then inoculated on tissue culture of McCoy cells for isolation of *Chlamydia trachomatis*.
Results: *Chlamydia trachomatis* was isolated from four out of the 175 cases examined 2.29%. Three of them had cervical erosion, which may offer suitable conditions for growth of *Chlamydia trachomatis*, while the fourth case had endocervicitis.
Conclusion: It appears from this study that *Chlamydia trachomatis* is present in cases of cervicitis.

PP-174 ***Chlamydia trachomatis* in cervices of women in late pregnancy**

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Introduction: *Chlamydia trachomatis* infections of the genital tract represent the major focus of recent interests in *Chlamydia*. Assessment of the pathogenic role of *Chlamydia trachomatis* in the cervix is important for possible carcinogenic effect of deoxyribonucleic acid which has an intracellular developmental sequence, effect on the fetus, prenatal, intrapartum and effect on fertility if ascending infection to fallopian tubes occurs.
Aim: Detection of *Chlamydia trachomatis* in cervices of pregnant women in late pregnancy, correlation of Chlamydial infection with clinical and cytological picture of the cervix.
Subjects and Methods: 160 women in the third trimester of pregnancy. Cervical scrapings were taken; one smear was stained with Papanicolaou stain for cytology of the cervix and the other by Giemsa stain for detection of intracytoplasmic Chlamydial inclusions. An endocervical swab was taken, placed in special collection medium, then inoculated on tissue culture of McCoy cells for isolation of *Chlamydia trachomatis*.
Results:
- Two *Chlamydia* isolates from two cases with no cervical abnormality.
- Giemsa stained smears, showed intracytoplasmic inclusions in four cases.
- Cervical cytology of 30 cases, showed dysplasia in one case, metaplastic changes in 10 cases and normal cytology in 19 cases. Two of the *Chlamydia*-positive cases showed metaplastic cytological picture while the other four had normal cytology.

Conclusion: *Chlamydia trachomatis* is found in the genital tract of the pregnant females so children born to infected mothers must be examined for Chlamydial infection of the eye, respiratory tract and gastro-intestinal tract, since